

California Air Resources Board
Phase I EVR System
Installer/Contractor Training Plan Guidelines

May 16, 2005

Objective:

Proper installation of Phase I EVR systems is critical to reduce fugitive emissions, minimize troubleshooting for installers, minimize down time for station operators, limit re-inspections for district inspectors, and to ensure ongoing compliance.

Section 1: Administrative Requirements

The manufacturer shall address the following administrative issues:

1. Identify the training format and provide examples with the application submittal. For example, is the training conducted by an instructor in a classroom setting, or is it self-taught by video, CD-ROM, on-line, or written materials?
2. Schedule of courses shall be provided, including location, time, duration, fees, and dates. Identify who will receive the schedule and how it will be made available. Districts and ARB staff shall be provided with a schedule of courses.

Section 2: Course Requirements

At a minimum, the course work shall cover the following topics (if applicable):

I. Lecture Material

A) Background

1. Overview of Phase I EVR system operation
2. ARB Phase I EVR Executive Order
3. Local Permits / Authority to Construct

B) Pre-Installation

1. Checklist
2. Torque requirements
3. Standard tools
4. System specific tools
5. Proper use of pipe sealant, or other sealant
6. Site preparation
7. Safety

C) Installation Instructions

1. Riser preparation
2. Drop tube
3. Overfill prevention devices

4. Spill containers
5. Containment components
6. Adaptors
7. ATG caps
8. P/V vent valves
9. Ball floats
10. Proper use of pipe sealant

D) Maintenance Instructions

1. Checklist
2. Drain valves
3. Adaptors
4. P/V vent valves
5. Drop tubes
6. Drop tubes with overfill prevention devices
7. Ball floats

E) Troubleshooting and Repair

1. Checklist
2. Example “Maintenance Log” – recording maintenance and repairs

II. Hands-On Demonstration (could be video)

- A) Spill container
- B) Riser pipe preparation
- C) Drain valve
- D) Drop tube with overfill prevention device
- E) Drop tube
- F) Adaptors
- G) P/V vent valves

III. Compliance Testing

- A) How to conduct the following ARB test procedures:
 1. TP-201.1B: Static Torque of Rotatable Phase I Adaptors
 2. TP-201.1C: Leak Rate of Drop Tube / Drain Valve Assembly
 3. TP-201.1D: Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves
 4. TP-201.1E: Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves
 5. TP-201.3: Determination of 2 Inch WC Static Pressure Performance
 6. Other tests specific to the Executive Order
- B) Testing Tools
 1. Torque wrench
 2. Flow meters
 3. Test stands

4. Digital manometers, magnahelic gauges

Section 3: Exam

The exam portion of the training course will be specific to each manufacturer. For example, the exam may consist of a written, multiple choice, or fill in the blank test and a “hands on” assembly. The manufacturer must also identify the pass/fail criteria.

Section 4: Certification

Upon successful completion of the course, the manufacturer shall provide each participant with written documentation such as a certificate of completion. The certificate shall identify the appropriate Executive Order number, date of training, name of participant, and expiration date. A wallet card certificate would be a convenient way to demonstrate an individual has been trained. Certificates shall be valid for a maximum of two years from the date of course completion.

In addition, each manufacturer shall maintain an updated list of those individuals who have completed the course and make such list available for public access. For example, such list could be posted on the manufacturer’s web site or the manufacturer could maintain a telephone call center. The manufacturer shall provide information in the installation and maintenance manual on where to access a list of certified individuals and where to get information on the manufacturer’s training program. The goal is to provide the GDF owner/operator or regulator with a means to verify an individual is certified and/or how to receive training.

Section 5: Re-Certification

As stated above, the certification will expire two years from the date of completion. After such time, an individual must be re-certified by the manufacturer.

The manufacturer must notify certified individuals of any changes to the Executive Order, equipment, installation instructions, or any of the elements outlined in the training plan. Changes may require recertification prior to the two year expiration date.

Section 6: Revisions to the Training Plan

Revisions to the Training Plan may be initiated by the manufacturer to improve the course outline or material presented or it may be required because of a modification to the Executive Order. Any revisions to the Training Plan must be approved by ARB in writing.